

WHAT IS CLAIMED IS:

1. An apparatus for controlling an input signal level recognized when an input signal is inputted to a device, said apparatus comprising:

a memory storing values including a current input signal level to be controlled, a previous input signal level which is a level of an input signal preceding a current input signal, a maximum change value which is an upper limit of an allowable range of level variation in the device, a maximum no-change value which is an upper limit of an allowable range of level invariance in the device, a change counter value which is a number of input signals having different levels detected by comparing the current input signal level with the previous input signal level, and a no-change counter value which is a number of input signals having a same level detected by comparing the current input signal level with the previous input signal level;

a determining unit determining whether corresponding values stored in said memory are substantially identical, based either on the maximum change value and the change counter value, or on the maximum no-change value and the no-change counter value, and outputting a determination; and

a control unit reading the values stored in said memory to output the values to said determining unit and storing a predetermined level as the current input signal level based on the determination by said determining unit as to whether said corresponding values are substantially identical.

2. The apparatus according to claim 1, wherein said determining unit further determines whether the current input signal level is substantially identical to the previous input signal level and outputs a first determination, and wherein said control unit controls such that the change counter value or the no-change counter value is increased by one based on the first determination as to whether the two levels are substantially identical, and an increased value is stored.

3. The apparatus according to claim 2, wherein said control unit increases the no-change counter value by one when the current input signal level is substantially identical to the previous input signal level, and increases the change counter value by one when the current input signal level is substantially not identical to the previous input signal level.

4. The apparatus according to claim 3, wherein said control unit controls such that the change counter value and the no-change counter value are reset, and a level recognized at a signal input point is stored as the current input signal level, if the change counter value and the maximum change value are identical.

5. The apparatus according to claim 3, wherein said control unit controls said determining unit to determine whether the no-change counter value and the maximum no-change counter value are identical, if the change counter value and the maximum change value are not identical.

6. The apparatus according to claim 3, wherein said control unit controls such that the change counter value and the no-change counter value are reset, and a level recognized at the signal input point in the current input signal level is stored, if the no-change counter value and the maximum no-change value are identical.

7. The apparatus according to claim 3, wherein said control unit controls such that the previous input signal level is stored as the current input signal level, if the no-change counter value and the maximum no-change value are not identical.

8. The apparatus according to claim 1, wherein said input signal levels are either a high level or a low level of a digital voltage measuring signal outputted to an external device from a battery.

9. The apparatus according to claim 1, wherein said input signal levels are either in a mono mode or a stereo mode outputted from an audio system.

10. A method for controlling an input signal level of an input signal recognized when the signal is inputted to a device, said method comprising the steps of:

- a) determining whether a current input signal level to be controlled is substantially identical to a previous input signal level which is a level of an input signal preceding the current input signal;
- b) increasing any one of a change counter value which is a first number of input signals having different levels detected by comparing the current input signal level with the previous input signal level, or a no-change counter value which is a second number of input signals having a same level detected by comparing the current input signal level with the previous input signal level, by one based on the step a);
- c) determining the level of the current input signal, depending either on whether a maximum change value which is an upper limit of an allowable range of level variation in the device and the change counter value are identical, or on whether a maximum no-change value which is an upper limit of an allowable range of level invariance in the device and the no-change counter value are identical; and

d) setting a predetermined level as the current input signal level based on the determined level of the current input signal.

11. The method according to claim 10, wherein said step b) increases the no-change counter value by one when the current input signal level is substantially identical to the previous input signal level, and increases the change counter value by one when the current input signal level is substantially not identical to the previous input signal level.

12. The method according to claim 10, wherein said step c) includes a step of determining whether the change counter value and the maximum change value are identical, and wherein said step d) resets the change counter value and the no-change counter value and stores the level recognized at a signal input point as the current input signal level, if the change counter value and the maximum change value are identical.

13. The method according to claim 12, wherein said step c) includes a step of determining whether the no-change counter value and the maximum no-change counter value are identical, if the change counter value and the maximum change value are not identical, and wherein said step d) resets the change counter value and the no-change counter value and stores the

level recognized at the signal input point as the current input signal level, if the no-change counter value and the maximum no-change value are identical.

14. The method according to claim 13, wherein said step d) stores the previous input signal level as the current input signal level, if the no-change counter value and the maximum no-change value are not identical.

15. The method according to claim 10, wherein said input signal levels are either a high level or a low level of a digital voltage measuring signal outputted to an external device from a battery.

16. The method according to claim 10, wherein said input signal levels are either in a mono mode or a stereo mode outputted from an audio system.